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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,998	12/10/2003	Jing C. Chang	SO0007 US NA	9419

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E I DU PONT DE NEMOURS AND COMPANY
LEGAL PATENT RECORDS CENTER
BARLEY MILL PLAZA 25/1122B
4417 LANCASTER PIKE
WILMINGTON, DE 19805

EXAMINER

TENTONI, LEO B

ART UNIT	PAPER NUMBER
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1791

NOTIFICATION DATE	DELIVERY MODE
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04/02/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-Legal.PRC@usa.dupont.com

Office Action Summary	Application No. 10/733,998	Applicant(s) CHANG ET AL.	
	Examiner Leo B. Tentoni	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 and 46-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 and 46-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 17 January 2008 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly

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owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-4, 6-10 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Casey et al (WO 01/68962 A2) in combination with Hernandez et al (U.S. Patent Application Publication 2002/0071951 A1) and Abe et al (U.S. Patent 6,572,967 B1).

Casey et al (see the entire document, in particular, the abstract; page 1, lines 3-9; page 2, line 39 to page 4, line 11; page 9, Table I and lines 9-15; page 10, line 32 to page 11, line 10; page 11, lines 32-36; page 12, lines 1-23; page 13, line 4 to page 14, line 18) teaches a process of making 1 - 3 denier per filament (dpf) staple fiber from polytrimethylene terephthalate (PTT). Hernandez et al (see the entire document, in particular, paragraphs [0002], [0011] and [0029]) teaches a process of making 0.8 - 6 dpf staple fiber from PTT, and it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the disclosures of Casey et al and Hernandez et al principally in order to manufacture a PTT staple fiber having a desired size (e.g., 6 dpf) which is suitable for yarn and other textile applications. Regarding the newly-added limitation of "a quench zone shorter than 16 feet", this includes, for example, a length of 15.99999... feet. Casey et al teaches (page 9, lines 9-15) a quench zone of 16 feet to 20 feet, which includes, for

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example, a length of 16.00000... feet. This newly-added limitation would have been obvious to one of ordinary skill in the art at the time the invention was made in view of Casey et al (in combination with Hernandez et al) principally because the prior art range of Casey et al does not significantly deviate from the claimed range (see Perricone v. Medicis Pharmaceutical Corp., 77 USPQ2d 1321, 1327 (Fed. Cir. 2005)). Note also that this newly-added limitation would have been obvious to one of ordinary skill in the art at the time the invention was made in view of Abe et al principally because Abe et al teaches (see col. 11, line 20 of Abe et al) a process of making PTT fiber including a quench zone having a length of 170 cm (less than 6 feet in length) in order to manufacture high-quality PTT yarn. Furthermore, all of the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time the invention was made (KSR International Co. v. Teleflex Inc., 550 U.S. ____, 82 USPQ2d 1385 (2007)).

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Casey et al (WO 01/68962 A2) in combination with Hernandez et al (U.S. Patent Application Publication 2002/0071951 A1) and Abe et al (U.S. Patent 6,572,967 B1) as applied to claims 1-4, 6-10 and 12-15 above, and further in view of Bull et al (GB 992,670 A).

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Bull et al (see the entire document, in particular, page 1, lines 19-41) teaches a process of making staple fiber from polyester (including PTT) including providing a tow of about 100,000 denier per inch, and such would have been obvious to one of ordinary skill in the art at the time the invention was made in the process of Casey et al in view of Bull et al principally in order to manufacture textile staple fiber from PTT.

Furthermore, all of the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time the invention was made (KSR International Co. v. Teleflex Inc., 550 U.S. ____, 82 USPQ2d 1385 (2007)).

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Casey et al (WO 01/68962 A2) in combination with Hernandez et al (U.S. Patent Application Publication 2002/0071951 A1) and Abe et al (U.S. Patent 6,572,967 B1) as applied to claims 1-4, 6-10 and 12-15 above, and further in view of Chuah (U.S. Patent 6,113,825 A).

Chuah (see the entire document, in particular, col. 2, lines 36-56) teaches a process of making staple fiber from PTT including a first drawing stage at a temperature less than about 100°C, preferably within a range of about 40°C to about 80°C, and such would have been obvious to one of ordinary skill in the art at the time the invention was made in the process of Casey et

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al in view of Chuah principally in order to manufacture high-quality yarn from PTT. Furthermore, all of the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time the invention was made (KSR International Co. v. Teleflex Inc., 550 U.S. ____, 82 USPQ2d 1385 (2007)).

7. Claims 16-20, 22-26 and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Casey et al (WO 01/68962 A2) in combination with Abe et al (U.S. Patent 6,572,967 B1).

Casey et al (see the entire document, in particular, the abstract; page 1, lines 3-9; page 2, line 39 to page 4, line 11; page 9, Table I and lines 9-15; page 10, line 32 to page 11, line 10; page 11, lines 32-36; page 12, lines 1-23; page 13, line 4 to page 14, line 18) teaches a process of making 1 - 3 denier per filament (dpf) staple fiber from polytrimethylene terephthalate (PTT). Regarding the newly-added limitation of "a quench zone shorter than 16 feet", this includes, for example, a length of 15.99999... feet. Casey et al teaches (page 9, lines 9-15) a quench zone of 16 feet to 20 feet, which includes, for example, a length of 16.00000... feet. This newly-added limitation would have been obvious to one of ordinary skill in the art at the time the invention was made in view of Casey et al (in combination with Hernandez et al) principally because the prior art range of Casey et al does not significantly deviate from the claimed range (see

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Perricone v. Medicis Pharmaceutical Corp., 77 USPQ2d 1321, 1327 (Fed. Cir. 2005)). Note also that this newly-added limitation would have been obvious to one of ordinary skill in the art at the time the invention was made in view of Abe et al principally because Abe et al teaches (see col. 11, line 20 of Abe et al) a process of making PTT fiber including a quench zone having a length of 170 cm (less than 6 feet in length) in order to manufacture high-quality PTT yarn. Furthermore, all of the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time the invention was made (KSR International Co. v. Teleflex Inc., 550 U.S. ____, 82 USPQ2d 1385 (2007)).

8. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Casey et al (WO 01/68962 A2) in combination with Abe et al (U.S. Patent 6,572,967 B1) as applied to claims 16-20, 22-26 and 28-30 above, and further in view of Bull et al (GB 992,670 A).

Bull et al (see the entire document, in particular, page 1, lines 19-41) teaches a process of making staple fiber from polyester (including PTT) including providing a tow of about 100,000 denier per inch, and such would have been obvious to one of ordinary skill in the art at the time the invention was made in the process of Casey et al in view of Bull et al principally

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in order to manufacture textile staple fiber from PTT.

Furthermore, all of the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time the invention was made (KSR International Co. v. Teleflex Inc., 550 U.S. ____, 82 USPQ2d 1385 (2007)).

9. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Casey et al (WO 01/68962 A2) in combination with Abe et al (U.S. 6,572,967 B1) as applied to claims 16-20, 22-26 and 28-30 above, and further in view of Chuah (U.S. Patent 6,113,825 A).

Chuah (see the entire document, in particular, col. 2, lines 36-56) teaches a process of making staple fiber from PTT including a first drawing stage at a temperature less than about 100°C, preferably within a range of about 40°C to about 80°C, and such would have been obvious to one of ordinary skill in the art at the time the invention was made in the process of Casey et al in view of Chuah principally in order to manufacture high-quality yarn from PTT. Furthermore, all of the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in

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the art at the time the invention was made (KSR International Co. v. Teleflex Inc., 550 U.S. ____, 82 USPQ2d 1385 (2007)).

10. Claims 46-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Casey et al (WO 01/68962 A2) in combination with Hernandez et al (U.S. Patent Application Publication 2002/0071951 A1) and Chuah (U.S. Patent 6,113,825 A).

Casey et al (see the entire document, in particular, the abstract; page 1, lines 3-9; page 2, line 39 to page 4, line 11; page 9, Table I and lines 9-15; page 10, line 32 to page 11, line 10; page 11, lines 32-36; page 12, lines 1-23; page 13, line 4 to page 14, line 18) teaches a process of making 1 - 3 denier per filament (dpf) staple fiber from polytrimethylene terephthalate (PTT). Hernandez et al (see the entire document, in particular, paragraphs [0002], [0011] and [0029]) teaches a process of making 0.8 - 6 dpf staple fiber from PTT, and it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the disclosures of Casey et al and Hernandez et al principally in order to manufacture a PTT staple fiber having a desired size (e.g., 6 dpf) which is suitable for yarn and other textile applications. Casey et al does not explicitly teach a first drawing stage at a temperature of less than 60°C (note that this includes a temperature of, for example, 59.99999°C and note further that Casey et al teaches a temperature of at least 60°C, which includes, for example, a temperature of 60.00000°C, and this would have been obvious to one of ordinary skill in the art

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at the time the invention was made in the process of Casey et al principally because the prior art range of Casey et al does not significantly deviate from the claimed range (see Perricone v. Medicis Pharmaceutical Corp., 77 USPQ2d 1321, 1327 (Fed. Cir. 2005)). Chuah (see the entire document, in particular, col. 2, lines 36-56) teaches a process of making staple fiber from PTT including a first drawing stage at a temperature less than about 100°C, preferably within a range of about 40°C to about 80°C, and such would have been obvious to one of ordinary skill in the art at the time the invention was made in the process of Casey et al in view of Chuah principally in order to manufacture high-quality yarn from PTT. Furthermore, all of the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time the invention was made (KSR International Co. v. Teleflex Inc., 550 U.S. ____, 82 USPQ2d 1385 (2007)).

11. Claims 50-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Casey et al (WO 01/68962 A2) in combination with Chuah (U.S. Patent 6,113,825 A).

Casey et al (see the entire document, in particular, the abstract; page 1, lines 3-9; page 2, line 39 to page 4, line 11; page 9, Table I and lines 9-15; page 10, line 32 to page 11, line 10; page 11, lines 32-36; page 12, lines 1-23; page 13, line 4 to page 14, line 18) teaches a process of making 1 - 3 denier per

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filament (dpf) staple fiber from polytrimethylene terephthalate (PTT). Casey et al does not explicitly teach a first drawing stage at a temperature of less than 60°C (note that this includes a temperature of, for example, 59.99999°C and note further that Casey et al teaches a temperature of at least 60°C, which includes, for example, a temperature of 60.00000°C, and this would have been obvious to one of ordinary skill in the art at the time the invention was made in the process of Casey et al principally because the prior art range of Casey et al does not significantly deviate from the claimed range (see Perricone v. Medicis Pharmaceutical Corp., 77 USPQ2d 1321, 1327 (Fed. Cir. 2005)). Chuah (see the entire document, in particular, col. 2, lines 36-56) teaches a process of making staple fiber from PTT including a first drawing stage at a temperature less than about 100°C, preferably within a range of about 40°C to about 80°C, and such would have been obvious to one of ordinary skill in the art at the time the invention was made in the process of Casey et al in view of Chuah principally in order to manufacture high-quality yarn from PTT. Furthermore, all of the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time the invention was made (KSR International Co. v. Teleflex Inc., 550 U.S. ____, 82 USPQ2d 1385 (2007)).

Response to Arguments

12. Applicant's arguments with respect to claims 1-30 and 46-53 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leo B. Tentoni whose telephone number is (571) 272-1209. The examiner can normally be reached on Monday - Friday (6:30 A.M. - 3:00 P.M.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina A. Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Leo B. Tentoni/
Primary Examiner, Art Unit 1791